



BRIVURA

540 TVL OSD Camera Series

User Manual

V1.0



DESCRIPTION

The camera uses SONY charge coupled device (CCD) image sensor, and employs digital signal processing (DSP) chip-set for image control, and all integrated state circuitry which provides extremely long life and high reliability. This camera offers excellent image quality, and is not subject to distortions from magnetic fields. High resistance to shock and vibration, and easy to install, this camera is the best choice for your CCTV system.

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WARNINGS & CAUTIONS

- The information provided in the user manual is for the safety of the customers. Please read the user manual before operating the product and follow the instructions provided accordingly.

Warning Messages

- Do not install under excess hot conditions.

Optimum operational temperature range is 0°C and +50°C.

- Do not install under varying light conditions. Continuously varying light frequency might cause problems in the normal functioning of the camera.
- Do not put camera under shocks and jerks. This may cause the serious disorientation or the distortion in the components thereby causing the malfunctioning of the product.
- Do not install under excess of humid conditions.

This may cause the deposition of water droplets on the lens and several other sensitive components thereby lowering the picture quality.

- Do not expose the camera directly to high light intensity pulse.

This may damage the CCD or may create dead pixels in the CCD.

- Do not expose camera to water.

This may result in malfunctioning of the camera or may result in the corrosion of certain components due to minerals contained in water.

- Do not expose camera to radioactivity.

Radioactive exposure may cause damage to CCD or may produce dead pixels.

- Do not attempt to open the camera.

Unauthorized opening of camera is not permissible as it could cause breakage of the fragile components.

- Do not use low quality cables and power supply.

Only recommended cables/wires and power supply should be used for proper functioning of the camera.

If any abnormality occurs, make sure to unplug the unit and contact your local dealer or our service centre.

INSTALLATION

- Installation must be carried out by the authorized personals only.
- Surface on which the camera is to be mounted must be strong enough to hold the camera firmly, if not so reinforce the surface again so that the camera may not fall off the surface.

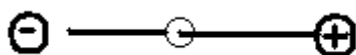
CONNECTIONS:

The functions of connecting plugs or terminals are as below:

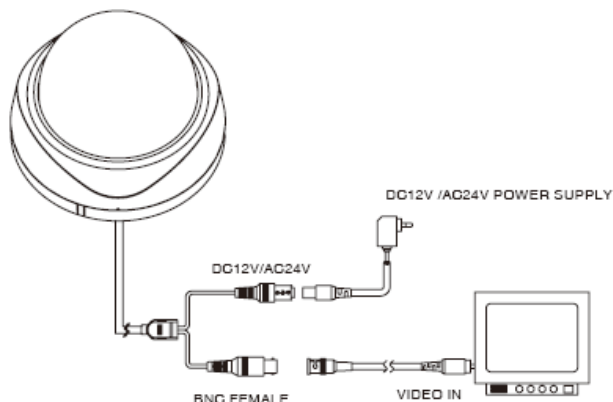
Video Output terminal, BNC or RCA



DC 12V power supply plug



DUAL(DC12V/AC24V)



TROUBLESHOOTING

Problem	Solution
No Video	Check the power supply and line connection between the camera and monitor.
Image not Clear	• Check the surface of the lens • Check the focus of the lens and refocus it.
Weak Contrast	Check whether the camera is exposed under too strong light or not
Flicker	Check whether the camera face to the sun

Image	directly or strong light
Noise in Video	• Check illumination is low or not • Check power supply voltage is low or not • Check proper wire connectivity

SETUP MENU

MAIN MENU	SUBMENU
Initial set	ELEC
General	• CAMERA ID • MIRROR • HI-RESOLUTION • SHARPNESS • COLOR SUPPRESS • APERTURE SUPPRESS • HIGHLIGHT SUPPRESS • THRESHOLD LEVEL • EXIT
Backlight	• BACKLIGHT MODE • AREA 1 • AREA 2 • AREA 3 • AREA 4 • AREA 5 • SENS • GAIN • UNWEIGHTED LEVEL • EXIT TO MENU
Privacy	• MASK NUMBER • MASK SET • HORIZONTAL START POSITION • HORIZONTAL END POSITION • VERTICAL START POSITION • VERTICAL END POSITION • MASK COLOR • BACK TO MENU
WBC mode	• PUSH • MANUAL WB • INDOOR • FLUORESCENT LIGHT • OUTDOOR • EXIT TO MENU
AE mode	• AE MODE • AE • AI • AE SHUTTER • MANUAL SHUTTER • BACK TO MENU
Anti color rolling	• ON / OFF
Flicker less	• OFF • NORMFLC • LLFLC • FIXSHTFLC
Exit	• RETURN

GENERAL

It incorporates the general parameter settings, on selecting the General option following selection panel appears on the main screen of the monitor.

GENERAL

CAMERA ID
COLOR
MIRROR
HI-RESOLUTION
SHARPNESS
COLOR-SUPPRESS
APERTURE SUPPRESS
HIGHLIGHT SUPPRESS
THRESHOLD LEVEL
EXIT

- When the SETUP menu screen is displayed, select GENERAL by using the Function Setup switch so that COLOR is visible on the screen.
- Select a desired mode using the Function Setup switch.
- In order to exit the menu, use the function key to move the pointer up & down and then select 'EXIT' to move out to main menu.
- ## In context with the usage of this function the overall color for the given picture can be enhanced up to a larger extent than what it is actually in disabled mode.

Note: - When 'Color' mode is in 'ON' state 'Color Suppress' function cannot be used.

Selection Mode: - ON/OFF

Camera ID

GENERAL

CAMERA ID ←
COLOR
MIRROR

- When the SETUP menu screen is displayed, select GENERAL by using the Function Setup switch so that CAMERA ID is visible on the screen.
- Select a desired value using the Function Setup switch.
Naming of cameras from 1 to 255 can be done with this function depending upon availability of camera inputs.
- In order to exit the menu, use the function key to move the pointer up & down and then select 'EXIT' to move out to main menu.

COLOR

GENERAL

CAMERA ID
COLOR ←
MIRROR

MIRROR

GENERAL

CAMERA ID
MIRROR ←
HI-RESOLUTION

- When the SETUP menu screen is displayed, select GENERAL by using the Function Setup switch so that MIRROR is visible on the screen.
- Select a desired mode using the Function Setup switch.
- In order to exit the menu, use the function key to move the pointer up & down and then select 'EXIT' to move out to main menu.
- ## Switching between Normal and Inverted video image can be obtained with this function.
- ON: - Mirror / Inverted Image OFF: - Normal Image

HI-RESOLUTION

GENERAL

MIRROR
HI-RESOLUTION ←
SHARPNESS

- When the SETUP menu screen is displayed, select GENERAL by using the Function Setup switch so that HI-RESOLUTION is visible on the screen.

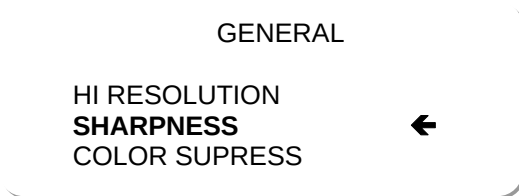
- Select a desired mode using the Function Setup switch.
- In order to exit the menu, use the function key to move the pointer up & down and then select 'EXIT' to move out to main menu.

Four different modes such as 'OFF, LOW, MID, HIGH' can be selected to increase the clarity with this function.

As on moving from 'Low to High Resolution' mode the overall picture clarity goes on increasing.

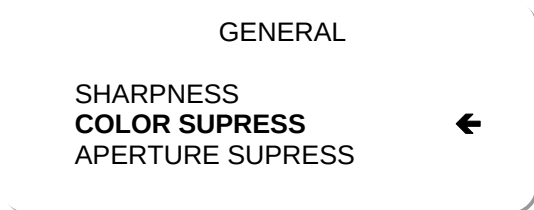
Under 'High Resolution' mode the extent of the visibility of the objects increases to a greater extent.

SHARPNESS



- When the SETUP menu screen is displayed, select GENERAL by using the Function Setup switch so that SHARPNESS is visible on the screen.
- Select a desired mode using the Function Setup switch.
- ## 'Sharpness' describes the clarity of detail in a video, and can be a valuable creative tool for emphasizing texture.
- In order to exit the menu, use the function key to move the pointer up & down and then select 'EXIT' to move out to main menu.

COLOR SUPPRESS

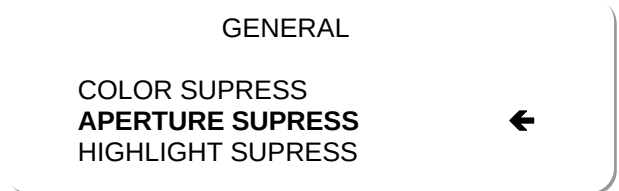


- When the SETUP menu screen is displayed, select GENERAL by using the Function Setup switch so that COLOR SUPPRESS is visible on the screen.
- Select a desired mode using the Function Setup switch.
- ## With the use of Color Suppress excess amount of color in the video can be lowered down to a certain

extent thereby increasing the overall picture quality of the system.

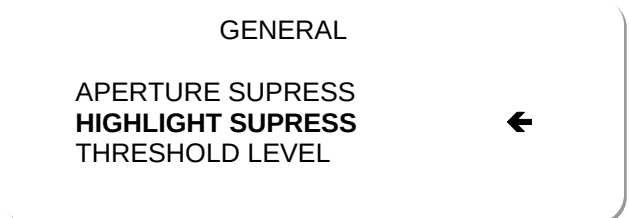
NOTE: - This function works only if the 'COLOR' is set to **OFF** mode and vice-versa.

APERTURE SUPPRESS



- When the SETUP menu screen is displayed, select GENERAL by using the Function Setup switch so that APERTURE SUPPRESS is visible on the screen.
- Select a desired mode using the Function Setup switch.
- In order to exit the menu, use the function key to move the pointer up & down and then select 'EXIT' to move out to main menu.
- ## It helps in the regulation of the time duration for the lens exposure to the light signal, thereby increasing or decreasing the extent of light exposure on the lens.
- ON: - Suppression mode, OFF: - Normal mode

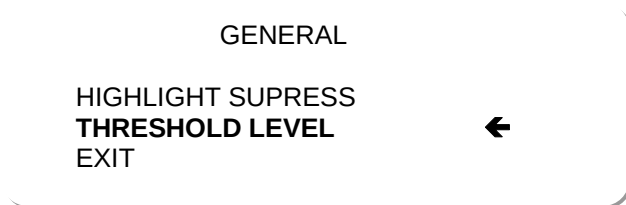
HIGHLIGHT SUPPRESS



- When the SETUP menu screen is displayed, select GENERAL by using the Function Setup switch so that HIGHLIGHT SUPPRESS is visible on the screen.
- Select a desired mode using the Function Setup switch.
- In order to exit the menu, use the function key to move the pointer up & down and then select 'EXIT' to move out to main menu.
- ## This function is used to highlight those areas where the impact of light is concentrated.

Range provided provides an added advantage to highlight that area on user's interest.

THRESHOLD LEVEL

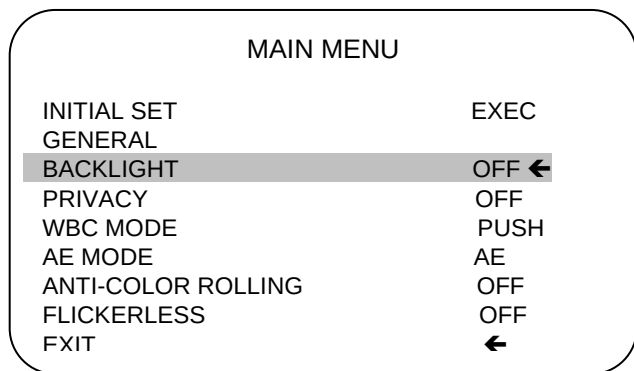


- When the SETUP menu screen is displayed, select **GENERAL** by using the Function Setup switch so that **HIGHLIGHT SUPPRESS** is visible on the screen.
- Select a desired mode using the Function Setup switch.
- In order to exit the menu, use the function key to move the pointer up & down and then select '**EXIT**' to move out to main menu.
- ## It is the extent beyond which the change in the overall picture quality is visible.

BACKLIGHT

This camera is designed so that it delivers a distinctive subject and background at the same time, even when the subject is in backlight, unlike conventional cameras, by adopting a proprietary SONY CXD 3172 AR DSP chip.

BACKLIGHT MODE SELECTION



- When the MAIN MENU screen is displayed, select '**BACKLIGHT**' by using the Function Setup switch so that the arrow indicates **BACKLIGHT**.
- Select a desired mode using the Function Setup switch depending on the camera purpose.

BACKLIGHT MODE SEL

BACKLIGHT MODE
GAIN
UNWEIGHTED LEVEL
BACK TO MENU

- When the **BACKLIGHT MODE SEL** screen is displayed, select '**BACKLIGHT MODE**' by using the Function Setup switch so that the arrow indicates **BACKLIGHT**.
- Select a desired mode using the Function Setup switch depending on the camera purpose.

✚ It enables the Switching of the Backlight Compensation mode from off to on.

✚ In the **SENS** mode auto adjustment of backlight can be done to the overall video.

✚ As the screen is divided into 5 different portions. So, the user can individually select different areas of his interest for the optimization of Backlight from the given options such as **AREA 1** to **AREA 5**.

Area selection involves the overall increase in quality of the picture.

- Selection is to be made from the following options **AREA 1**, **AREA 2**, **AREA 3**, **AREA 4**, **AREA 5**, **SENS**, **OFF**.
- In order to exit the menu, use the function key to move the pointer up & down and then select '**EXIT**' to move out to main menu.

GAIN

- When the **BACKLIGHT MODE SEL** screen is displayed, select '**GAIN**' by using the Function Setup switch so that the arrow indicates **GAIN**.
- Select a desired mode using the Function Setup switch depending on the camera purpose.
- In order to exit the menu, use the function key to move the pointer up & down and then select '**EXIT**' to move out to main menu.

UNWEIGHTED MODE

- When the BACKLIGHT MODE SEL screen is displayed, select 'UNWEIGHTED MODE' by using the Function Setup switch so that the arrow indicates UNWEIGHTED MODE.
- Select a desired mode using the Function Setup switch depending on the camera purpose.
- In order to exit the menu, use the function key to move the pointer up & down and then select 'EXIT' to move out to main menu.

By the selection of the particular area of our concern we can optimize the effect of Backlight through with this parameter within a range of 000 to 015 numerical value.

PRIVACY MASKING

This function enables the user to select an area which he/she does not want to be included in the Live/Playback mode.

MAIN MENU	
INITIAL SET	EXEC
GENERAL	
BACKLIGHT	OFF
PRIVACY	OFF ←
WBC MODE	PUSH
AE MODE	AE
ANTI-COLOR ROLLING	OFF
FLICKERLESS	OFF
EXIT	←

- When the MAIN MENU screen is displayed, select 'PRIVACY' by using the Function Setup switch so that it starts blinking.
- Select a desired mode using the Function Setup switch depending on the camera purpose.
 - MASK NUMBER- It enables us to select eight different locations on the screen from a range 000 to 008 that wish not to be recorded or are to be eliminated.
 - MASK SET- It enables the user to select or deselect to mark the shape and size of area to be omitted through the selection options ON/OFF. Under ON state following parameters are enabled.

- Horizontal Start Position- Marking can be done on the x-axis on the screen depicting starting point of masked area, such as from where the area under privacy masking starts.
- Horizontal End Position- Marking can be done on the x-axis on the screen depicting end point of masked area.
- Vertical Start Position- Marking can be done on the y-axis on the screen depicting start point of masked area.
- Vertical End Position- Marking can be done on the y-axis on the screen depicting end point of masked area.
- Mask Color- Customization of the masked space can be done with this function to the desired color present. Available choices for the user are as follows - Orange, Yellow, Green, Blue, Purple, Hold, Grey, White, Red, Black.

WBC MODE

It enable Automatic white balance correction or as per defined by the user settings by 'PUSH' selection. White Balance Control mode enables the correction or control related to excess of brightness involved in the picture.

MAIN MENU	
INITIAL SET	EXEC
GENERAL	
BACKLIGHT	OFF
PRIVACY	OFF
WBC MODE	PUSH ←
AE MODE	AE
ANTI-COLOR ROLLING	OFF
FLICKERLESS	OFF
EXIT	←

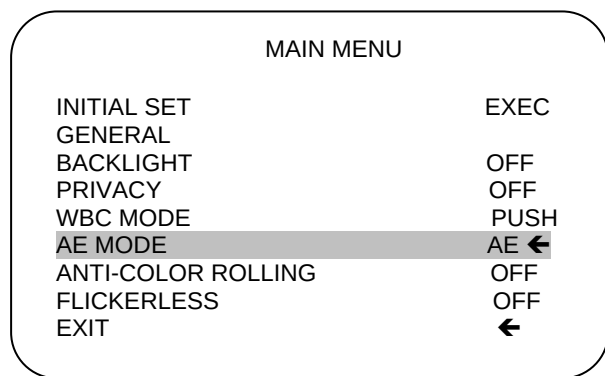
- When the MAIN MENU screen is displayed, select 'WBC MODE' by using the Function Setup switch so that it starts blinking.
- Select a desired mode using the Function Setup switch depending on the camera purpose.

WBC MODE

PUSH
MANUAL WB
INDOOR
FLOURECENT LIGHT
OUTDOOR
BACK TO MENU

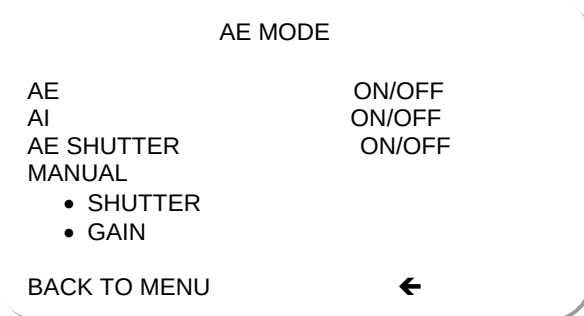
- **PUSH-** It adjusts the white Balance to a predefined value under initiated state. Toggle from high state to low state can be done by simply selecting 'ON' and vice-versa.
- **MANUAL WB-** It allows the user to adjust White Balance accordingly to the environmental conditions and preference. User can set the value according to his preferences.
- **INDOOR-** This parameter adjusts the WB accordingly to the indoor light conditions, as for the indoor conditions values are preloaded in the program.
- **FLOURECENT LIGHT-** This parameter adjusts the WB accordingly to the fluorescent light conditions and temperature.
- **OUTDOOR-** This parameter adjusts the WB accordingly to the outdoor light conditions.
- In order to exit the menu, use the function key to move the pointer up & down and then select 'EXIT' to move out to main menu.

AE



It enables the adjustment of the shutter opening and closing automatically or accordingly to the values modified by the user himself depending upon the picture required.

- When the MAIN MENU screen is displayed, select 'AE MODE' by using the Function Setup switch so that it starts blinking.
- Select a desired mode using the Function Setup switch depending on the camera purpose.



- **AE-** This function enables or disables the automatic opening and closing of the electronic shutter with the change in light conditions, thereby increasing or decreasing the amount of light falling on the CCD.
- **AI-** It configures the functioning for the Auto IRIS or disables it, thereby configuring the automatic opening and closing of the shutter depending upon the light falling on it.
- **AE SHUTTER-** With this function we can set the shutter exposure speed within a range of predefined values listed below.

1/50, 1/120, 1/250, 1/500, 1/1k, 1/2k, 1/4k, 1/10k, 1/100k, these values shows the opening of the shutter per unit time. **While using this function FLICKERLESS should be closed.**

- **MANUAL**
 - **SHUTTER-** With this function we can set the shutter exposure speed within a range of predefined values listed below.
 - **GAIN-** 1/50, 1/120, 1/250, 1/500, 1/1k, 1/2k, 1/4k, 1/10k, 1/100k, these values shows the opening of the shutter per unit time. And alongside the GAIN value between 5db, 13db, 22db, 30db.
- In order to exit the menu, use the function key to move the pointer up & down and then select 'EXIT' to move out to main menu.

ANTI COLOR ROLLING

It reduces the effect of color change during Flicker less control mode when enabled and vice-versa. It reduces the color spectrum formed when the camera is focused on the fluorescent light

MAIN MENU	
INITIAL SET	EXEC
GENERAL	
BACKLIGHT	OFF
PRIVACY	OFF
WBC MODE	PUSH
AE MODE	AE
ANTI-COLOR ROLLING	OFF ←
FLICKERLESS	OFF
EXIT	←

- When the MAIN MENU screen is displayed, select 'Anti Color Rolling' by using the Function Setup switch so that it starts blinking.
- Select a desired mode using the Function Setup switch depending on the camera purpose.
- Whether to turn ON this function or not.
- In order to exit the menu, use the function key to move the pointer up & down and then select 'EXIT' to move out to main menu.

FLICKERLESS

MAIN MENU	
INITIAL SET	EXEC
GENERAL	
BACKLIGHT	OFF
PRIVACY	OFF
WBC MODE	PUSH
AE MODE	AE
ANTI-COLOR ROLLING	OFF
FLICKERLESS	OFF ←
EXIT	←

- When the MAIN MENU screen is displayed, select 'FLICKERLESS' by using the Function Setup switch so that it starts blinking.
- Select a desired mode using the Function Setup switch depending on the camera purpose.
Flicker less control actually takes into account the cycling process of the light sources and adjusts the color, gain, ESC and white tracking balance to produce a correct color picture.

It makes use of three parameters

1. NORMFLC
2. LLFLC
3. FIXSHTFLC

Selection ranges between OFF, NORMAL, LLFLC, FIXSH.

- In order to exit the menu, use the function key to move the pointer up & down and then select 'EXIT' to move out to main menu.

EXIT

MAIN MENU	
INITIAL SET	EXEC
GENERAL	
BACKLIGHT	OFF
PRIVACY	OFF
WBC MODE	PUSH
AE MODE	AE
ANTI-COLOR ROLLING	OFF
FLICKERLESS	OFF
EXIT	←

Press the Function Setup switch in the EXIT menu to save the current settings and exit the SET menu.

SPECIFICATION

MODEL	SP-354DO	SP-354DA490	SP-354CSNO	SP-354CTNO
Camera Type	Dome	Varifocal Dome	Box Camera	Day& Night Box Camera
Image sensor	1/3 “ SONY SUPER HAD-II CCD			
Effective Pixels	NTSC : 768 (H) x 494 (V), PAL : 752 (H) x 582 (V)			
Horizontal Resolution	760 H			
Operation Area	Indoor	Indoor	Indoor	Indoor
System View	PAL/NTSC			
OSD	English			
Lens	3.6 mm Board Lens Optional Lens: 2.5 / 6 / 8 / 12 / 16 / 25 mm	Built in 4-9 / F 1.6 Optional 2.8-10 mm / F 1.6	C/CS Mount	
Video output level	1.0vp-p (75 Ohms Composite Video Out)			
Resolution	540 TVL			
Day & Night	No	No	No	Yes (ICR)
Min. Illumination	0.05 LUX			
White Balance	(Push, Manual, Indoor, Outdoor, Fluorescent light)			
(AE/ME) Exposure	(AE, AI, Shutter, AE Shutter, Manual)			
Back Light Compensation	(Backlight Mode, Gain, Unweighted Level)			
HSBLC	ON/OFF			
MIRROR	ON/OFF			
FLICKER FREE MODE	OFF, NORM, LLFLC, FIXSH			
5 Switch Menu Function Control	MENU, UP/DOWN, RIGHT/LEFT			
Privacy Mask Function	ON/OFF (8 Areas)			
SHARPNESS	ON/OFF			
Input Voltage	12 V DC	12 V DC	12 V DC	12 V DC
Current Drawn	Approx. 200 m A	Approx. 200 m A	Approx. 300 m A	Approx. 300 m A
Operating Temperature/Humidity	0°C to +50°C / 30% to 80% RH			

IR CAMERA SERIES SP-354IROXX

Model NO SP-354IROXX W

354- 1/3” sensor with 540 TVL Resolution

IRO- Bravura IR series

XX – IR Distance - 30,40,50,70 Mtr.

W – With Fan

IR Distance	IR LEDs
30 mtr.	36 pcs. 850 nm /Ø 5 mm
40 mtr.	48 pcs. 850 nm / Ø 5 mm
50 mtr.	60 pcs. 850 nm/ Ø 5 mm
70 mtr.	12 pcs. 850 nm / Ø 10 mm

MODEL	SP-354IROXXX	SP-54IR49LO	SP-354IRD49O	SP-354IR49O	NPRO-354
Camera Type	IR Box	Vandal Proof Varifocal IR Dome	Varifocal IR Dome	Vari Focal IR Camera	Number Plate Reader Camera
Image sensor	1/3 “ SONY SUPER HAD-II CCD				
Effective Pixels	NTSC : 768 (H) x 494 (V), PAL : 752 (H) x 582 (V)				
Horizontal Resolution	760 H				
Operation Area	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
System View	PAL/NTSC				
OSD	English				
Lens	Optional Lens: 2.5/3.6 / 6 / 8 / 12 / 16 / 25 mm	Built in 4-9 / F 1.6 Optional 2.8-10 mm / F 1.6	Built in 4-9 / F 1.6 Optional 2.8-10 mm / F 1.6	Built in 4-9 / F 1.6 Optional 2.8-10 mm / F 1.6	3.6 mm Board Lens Optional Lens: 2.5/6 / 8 / 12 / 16 / 25 mm
Video output level	1.0vp-p (75 Ohms Composite Video Out)				
Resolution	540 TVL				
IR Distance	30,40,50,70 Mtr.	10-30 Mtr.	10-30 Mtr.	10-30 Mtr.	30,40,50,70 Mtr.
Min. Illumination	0.05 LUX				
White Balance	Push, Manual, Indoor, Outdoor, Fluorescent light				
(AE/ME) Exposure	AE, AI , AE Shutter, Manual				
Back Light Compensation	Backlight Mode, Gain, Unweighted Level				
HSBLC	ON/OFF				
MIRROR	ON/OFF				
FLICKER FREE	OFF, NORM, LLFLC, FIXSH				

MODE					
5 Switch Menu Function Control	MENU, UP/DOWN, RIGHT/LEFT				
Privacy Mask Function	ON/OFF (8 Areas)				
SHARPNESS	ON/OFF				
I/O Connectors	DC FEMALE / BNC FEMALE				
Operating Temperature/Humidity	0°C to +50°C / 30% to 80% RH				
Input Voltage	12 V DC	12 V DC	12 V DC	12 V DC	12 V DC

Samriddhi Automations Private Limited

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